



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/537,405	03/29/2000	Yoshikazu Watanabe	0557-4945-2	6828
22850	7590	01/06/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			PHAM, THIERRY L	
			ART UNIT	PAPER NUMBER
			2624	
DATE MAILED: 01/06/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/537,405	WATANABE, YOSHIKAZU
	Examiner Thierry L Pham	Art Unit 2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 24 November 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-49 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

- This action is responsive to the following communication: an RCE filed on 11/24/04.
- Claims 1-49 are pending in application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, 34-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honma (U.S. 6304313), and in view of Safai (U.S. 6167469).

Regarding claim 1, Honma discloses a digital camera (digital camera 101, Fig. 1) having a normal photographing mode and a document photographing mode (document or natural image mode, col. 14, lines 31-35), said digital camera comprising:

- an image pickup unit (CCD, Fig. 1, col. 5, lines 33-38) which picks up an image of a subject and converts (conversion, abstract) the image to image data;
- an angle of photography detection unit (perspective correction processor 109 for detecting and adjusting/correcting the angle detected to align the document prior to photograph, fig. 4a-4c, col. 2, lines 10-20 and col. 5, lines 44-60 and col. 7, lines 3-52) which detects an angle of photography with respect to a surface of a document as the subject in the document photographic mode and prevents capturing the image until a suitable angle of photography is detected;
- a compression unit (compressor, Fig. 1) which compresses the image data and generates a compressed image data;
- a storage unit (image memory, Fig. 1) which stores the compressed image data;
- an expansion unit (decompressor, Fig. 1) which expands the compressed image data;

- a selection unit (switcher using via user interface, Fig. 1, col. 6, lines 34-44) with which any of the normal photographing mode and the document photographing mode can be selected;
- and an image processing unit (CPU 117, Fig. 1, col. 5, lines 65-67 to col. 6, lines 1-9) which subjects the image data to image processing depending on the selected photographing mode, wherein said expansion unit expands the compressed image data acquired in the document photographing mode and stored in said storage unit, and then said image processing unit subjects this data to an image processing that a destination requires, prior to providing the image to the destination (process the images and then sending the images to printer, fig. 1).

However, Honma does not explicitly teach a digital camera comprising with which a destination to receive the image data can be selected.

Safai, in the same field of endeavor for digital camera, teaches a digital camera comprising with which a destination to receive the image data can be selected (i.e. either to print or mail, fig. 3, abstract and col. 8, lines 1-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Honma as per teachings of Safai because of a following reason: (1) allow users to send a digital images via electronic email to multiple users without having to print; therefore, reducing printing fees and shipping costs (fig. 4).

Therefore, it would have been obvious to combine Honma with Safai to obtain the invention as specified in claim 1.

Regarding claim 2, Honma further discloses the digital camera according to claim 1, wherein, in the document photographing mode, data related to the conditions (monochrome color, col. 6, lines 33-39) during photography are stored in said storage unit in correlation with the compressed image data, and said image processing unit subjects the image data to image processing based on the data related to the conditions during photography.

Regarding claim 3, Honma further discloses the digital camera according to claim 1 further comprising a data communication unit (I/F unit, Fig. 1, col. 5, lines 62-65) which performs data communications with the outside.

Regarding claims 7-8, please see rejection basis/rationale as described in claims 1 and 3 (respectively) above.

Regarding claim 34, Honma discloses a digital camera having a normal photographing mode and a document photographing mode, said digital camera comprising:

- (1) an image pickup unit (CCD, Fig. 1, col. 5, lines 33-38) which picks up an image of a subject and converts the image to image data;
- (2) a compression unit (compressor, Fig. 1) which compresses the image data and generates a compressed image data;
- (3) a storage unit (image memory, Fig. 1) which stores the compressed image data;
- (4) a selection unit (switcher using via user interface, Fig. 1, col. 6, lines 34-44) with which any of the normal photographing mode and the document photographing mode can be selected; and
- (5) a display unit (LCD on user interface, Fig. 1, col. 5, lines 43-50 and col. 6, lines 45-50) which displays the image of the subject on a monitor before the image is photographed, wherein, in the document photographing mode, said display unit displays guidance (pattern of document and perspective corrections, Fig. 4, col. 6, lines 45-50) to notify a user of the conditions (horizontal/vertical directions of images, Fig. 4, col. 6, lines 33-45) during photography when the image of the subject is being displayed on the monitor.

Regarding claim 35, Honma further discloses the digital camera according to claim 34, wherein the guidance display is provided with a frame display with which the user recognizes the area of regular-size paper (col. 6, lines 24-30).

Regarding claims 39-40, please see rejection basis/rationale as described in claims 34-35 (respectively) above.

Regarding claim 44, Honma discloses a digital camera having a normal photographing mode and a document photographing mode, said digital camera comprising:

- (1) an image pickup unit (CCD, Fig. 1, col. 5, lines 33-38) which picks up an image of a subject and converts the image to image data;
- (2) a compression unit (compressor, Fig. 1) which compresses the image data and generates a compressed image data;
- (3) a storage unit (image memory, Fig. 1) which stores the compressed image data;
- (4) a selection unit (switcher using via user interface, Fig. 1, col. 6, lines 34-44) with which any of the normal photographing mode and the document photographing mode can be selected; and
- (5) an angle of photography detection unit (perspective correction processor 109, Fig. 1) which detects the angle of photography of with respect to the surface of the subject (Fig. 4A-4C), wherein, in the document photographing mode, photography is started only when the angle of photography is substantially vertical (vertically align, Fig. 4A).

Regarding claim 45, Honma further discloses the digital camera according to claim 44, wherein said angle of photography detection unit detects the angle of photography from the shape of the photographed subject (vertical and horizontal directions, Fig. 4A-4C).

Regarding claims 46-47, please see rejection basis/rationale as described in claims 44-45 (respectively) above.

Regarding claim 48, Honma discloses a document photographing and transmitting method of the digital camera, said method comprising the steps of:

- (1) monitoring (monitoring via a monitor (user interface), Fig. 1) a subject on a display unit in response to instructions for monitoring;
- (2) displaying guidance (pattern of document and perspective corrections, Fig. 4, col. 6, lines 45-50) on said display unit when the monitoring is performed;
- (3) capturing an image (captured image via CCD, Fig. 1), converting (conversion, abstract) the image to image data, and compressing (compressor, Fig. 1) the image data in response to

instructions for photographing; storing (image memory, Fig. 1) the compressed image data in a storage unit;

(4) reading (CPU, fig. 1) the compressed image data stored in the storage unit and expanding (decompressor, Fig. 1) the data in response to instructions for transmission;

(5) subjecting (OCR, fig. 1) the expanded image data to an image processing that a destination requires; and (6) transmitting (transmits via I/F interface, fig. 1) the image data, that has been subjected to image processing, to the destination.

Regarding claim 49, please see rejection basis/rationale as described in claim 48 (respectively) above.

Regarding claim 4, Safai discloses the digital camera comprising: (1) a memory (storage, Fig. 2, col. 2, lines 45-48 and col. 9, lines 15-45) which stores the names of destinations, telephone numbers or addresses, and an image deletion flag (delete option check box 472, Fig. 4F, col. 12, lines 55-60) that specifies whether the image data is to be deleted after its transmission in correlation with one another; (2) and a deletion unit (TRASH, Fig. 4C, col. 10, lines 60-67) which deletes the image data after the image data has been transmitted by said data communication unit based on the image deletion flag in said memory.

Regarding claim 5, Safai further discloses the digital camera further comprising a deletion unit (col. 12, lines 55-60) which deletes the image data after the image data has been transmitted by said data communication unit depending on a destination (i.e. email or physical mail address, col. 8, lines 61-67).

Regarding claim 6, Safai further discloses the digital camera wherein an operator can freely add or change the contents of said memory (operator can delete unwanted images using TRASH icon to free up memory space, col. 3, lines 23-28).

Regarding claims 9-11, please see rejection basis/rationale as described in claims 4-6 (respectively) above.

Regarding claim 36, Safai further discloses a memory (storage, Fig. 2, col. 2, lines 45-48 and col. 9, lines 15-45) which stores the names of destinations, telephone numbers or addresses, and frame display information (frame display via monitor, Fig. 1) that specifies whether the guidance (control functions such as zoom, exposure intensity, col. 7, lines 45-50) is to be displayed on photographing in correlation with one another, wherein said display unit displays (display control functions via monitor, col. 7, lines 45-50) or does not display the guidance based on the frame display information stored in said memory.

Regarding claim 37, Safai further discloses the digital camera according to claim 34, wherein said display unit displays (display destinations information via monitor, Fig. 4E) or does not display the guidance depending on a destination.

Regarding claim 38, Safai further discloses the digital camera according to claim 36, wherein an operator can freely add or change the contents of said memory (operator can delete unwanted images using TRASH icon to free up memory space, col. 3, lines 23-28).

Regarding claims 41-43, please see rejection basis/rationale as described in claims 36-38 (respectively) above.

Claim 12-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honma (U.S. 6304313), Safai et al (U.S. 6167469), and in view of Fellegara (US 2001/0015760 A1).

Regarding claim 12, Honma discloses a digital camera (digital camera 101, Fig. 1) having a normal photographing mode and a document photographing mode (document or natural image mode, col. 14, lines 31-35), said digital camera comprising:

- an image pickup unit (CCD, Fig. 1, col. 5, lines 33-38) which picks up an image of a subject and converts (conversion, abstract) the image to image data;
- an angle of photography detection unit (perspective correction processor 109 for detecting and adjusting/correcting the angle detected to align the document prior to photograph, fig. 4a-4c, col.

2, lines 10-20 and col. 5, lines 44-60 and col. 7, lines 3-52) which detects an angle of photography with respect to a surface of a document as the subject in the document photographic mode and prevents capturing the image until a suitable angle of photography is detected;

- a compression unit (compressor, Fig. 1) which compresses the image data and generates a compressed image data;
- a storage unit (image memory, Fig. 1) which stores the compressed image data;
- an expansion unit (decompressor, Fig. 1) which expands the compressed image data;
- a selection unit (switcher using via user interface, Fig. 1, col. 6, lines 34-44) with which any of the normal photographing mode and the document photographing mode can be selected;
- and an image processing unit (CPU 117, Fig. 1, col. 5, lines 65-67 to col. 6, lines 1-9) which subjects the image data to image processing depending on the selected photographing mode, wherein said expansion unit expands the compressed image data acquired in the document photographing mode and stored in said storage unit, and then said image processing unit subjects this data to an image processing that a destination requires, prior to providing the image to the destination (process the images and then sending the images to printer, fig. 1).

However, Honma does not explicitly teach a digital camera comprising with which a destination to receive the image data can be selected.

Safai, in the same field of endeavor for digital camera, teaches a digital camera comprising with which a destination to receive the image data can be selected (i.e. either to print or mail, fig. 3, abstract and col. 8, lines 1-67).

The combinations of Honma and Safai fail to explicitly disclose a digital camera further comprising an image process unit to process for clipping, conversion to a smaller number of gray levels in achromatic color, and resolution conversion.

Fellagara, in the same field of endeavor for digital camera (Fig. 1), discloses an image processing unit (digital subsystem, p. 7, par. 0056) for processing clipping, conversion to a smaller number of gray levels in achromatic color, and resolution conversion (cropping and resolution reducing, p. 7, par. 0056).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Honma as per teachings of Fellegara because of a following reason: (●) to

minimize storage space and to allocate space for flash memory (Fellegara, p. 7, par. 56); (•) allow users to send a digital images via electronic email to multiple users without having to print; therefore, reducing printing fees and shipping costs (Safai, fig. 4).

Therefore, it would have been obvious to combine Honma and Safai with Fellegara to obtain the invention as specified in claim 12.

Regarding claim 13, Honma further discloses the digital camera according to claim 12, wherein, in the document photographing mode, data related to the conditions (perspective correction, col. 7, lines 3-12) during photography are stored in said storage unit in correlation with the compressed image data, and said image processing unit subjects the image data to image processing based on the data related to the conditions during photography.

Regarding claim 14, Honma further discloses the digital camera according to claim 12 further comprising a data communication unit (I/F unit, Fig. 1, col. 5, lines 62-65) which performs data communications with the outside.

Regarding claims 18-19, please see rejection basis/rationale as described in claims 12 & 14 (respectively) above.

Regarding claims 23-25, please see rejection basis/rationale as described in claims 12-14 (respectively) above.

Regarding claims 29-30, please see rejection basis/rationale as described in claims 12 & 14 (respectively) above.

Regarding claim 15, Safai discloses the digital camera comprising: (1) a memory (storage, Fig. 2, col. 2, lines 45-48 and col. 9, lines 15-45) which stores the names of destinations, telephone numbers or addresses, and an image deletion flag (delete option check

box 472, Fig. 4F, col. 12, lines 55-60) that specifies whether the image data is to be deleted after its transmission in correlation with one another; (2) and a deletion unit (TRASH, Fig. 4C, col. 10, lines 60-67) which deletes the image data after the image data has been transmitted by said data communication unit based on the image deletion flag in said memory.

Regarding claim 16, Safai further discloses the digital camera further comprising a deletion unit (col. 12, lines 55-60) which deletes the image data after the image data has been transmitted by said data communication unit depending on a destination (i.e. email or physical mail address, col. 8, lines 61-67).

Regarding claim 17, Safai further discloses the digital camera wherein an operator can freely add or change the contents of said memory (operator can delete unwanted images using TRASH icon to free up memory space, col. 3, lines 23-28).

Regarding claims 20-22, please see rejection basis/rationale as described in claims 15-17 (respectively) above.

Regarding claims 26-28, please see rejection basis/rationale as described in claims 15-17 (respectively) above.

Regarding claims 31-33, please see rejection basis/rationale as described in claims 15-17 (respectively) above.

Response to Arguments

Applicant's arguments filed 9/21/04 have been fully considered but they are not persuasive.

- The applicants argued the cited prior art of record fails to teach "angle detection unit" as recited in independent claims.

In response: Upon re-examination of the prior art reference (U.S. 6304313 to Honma); Honma explicitly teaches a digital camera includes an angle of photography detection unit (perspective

correction processor 109 for detecting and adjusting/correcting the angle detected to align the document prior to photograph, fig. 4a-4c, col. 2, lines 10-20 and col. 5, lines 44-60 and col. 7, lines 3-52) which detects an angle of photography with respect to a surface of a document as the subject in the document photographic mode and prevents capturing the image until a suitable angle of photography is detected. It is recommended that the applicants also re-examine the cited references for more details.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP 11084482 discloses a digital camera includes an angle detection unit for detecting the document's angle prior of photographing (Abstract and pages 3-5, figs. 3-8). English translation is provided herein with office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L Pham whose telephone number is (703) 305-1897. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on (703)308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tp



GABRIEL GARCIA
PRIMARY EXAMINER